

## **REMARKS**

In view of the above amendments and the following remarks, reconsideration and further examination are respectfully requested.

### **I. Amendments to the Specification and Abstract**

As mentioned above, the specification and abstract have been reviewed and revised to improve their English grammar. No new matter has been added.

### **II. Title of the Invention**

In accordance with Examiner's request, the title of the invention has been amended. The invention is now titled "ILLUMINATING LIGHT SOURCE HAVING REDUCED SPECKLE NOISES AND TWO-DIMENSIONAL IMAGE DISPLAY USING THE SAME."

### **III. Amendments to the Claims**

Non-elected claims 14 and 21-23 have been cancelled without prejudice or disclaimer of the subject matter contained therein. Claim 15 has also been cancelled without prejudice or disclaimer of the subject matter contained therein.

Further, claim 18 has been amended to include the features of claim 13. In addition, independent claims 13 and 24 have been amended to clarify features of the invention recited therein and to further distinguish the present invention from the references relied upon in the rejections discussed below.

Moreover, new independent claim 25 has been added.

It is also noted that claims 13, 16-20 and 24 have been amended to make a number of editorial revisions thereto. These editorial revisions have been made to place the claims in better U.S. form. Further, these editorial revisions have not been made to narrow the scope of protection of the claims, or to address issues related to patentability, and therefore, these amendments should not be construed as limiting the scope of equivalents of the claimed features offered by the Doctrine of Equivalents.

#### **IV. 35 U.S.C. § 112, Second Paragraph Rejection**

Claims 13, 15-20 and 24 were rejected under 35 U.S.C. § 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner stated that independent claims 13 and 24 recite means-plus-function language, wherein the specification does not provide sufficient structure for each of the claimed “means” to perform the claimed function. This rejection is believed clearly inapplicable to amended claims 13, 16-20 and 24 since the claims have been drafted amended to remove the means-plus-function language and to recite elements having a defined structure. As a result, withdrawal of this rejection is respectfully requested.

#### **V. Allowable Subject Matter**

Claim 18 was identified by the Examiner as being allowable if rewritten in independent form to include all of the limitations of base claim 13. Specifically, the Examiner identified the limitation of claim 18 that recites “the beam oscillation means oscillates the light in a non-integral multiple of one cycle,” as distinguishing from the prior art of record.

The Applicants would like to thank the Examiner for this indication of allowable subject matter. As mentioned above, claim 18 has been amended to include the subject matter of base claim 13. Furthermore, new claim 25 has been drafted to recite subject matter that is similar to the distinguishing features recited in independent claim 18 (i.e., oscillating the light in a non-integral multiple of one cycle).

Accordingly, in view of the Examiner's indication of allowable subject matter as discussed above, it is submitted that amended independent claim 18 is allowable. Furthermore, in view of the subject matter identified as being allowable, it is respectfully submitted that new claim 25, which has been drafted to include the allowable subject matter, is also allowable.

## **VI. 35 U.S.C. § 102 Rejection**

Claims 13, 15-17, 20 and 24 were rejected under 35 U.S.C. § 102(b) as being anticipated by Gerhard (U.S. 6,140,979). This rejection is believed clearly inapplicable to amended independent claims 13 and 24 and claims 16, 17, 19, 20 and 24 that depend therefrom for the following reasons.

Independent claim 13 recites a 2-D image display device including a coherent light source, a 2-D beam scanner for scanning light from the coherent light source two-dimensionally, a light intensity modulator for modulating the light from the coherent light source in intensity based on a video signal, and a 1-D beam scanner for minutely oscillating the light from the coherent light source. Further, claim 13 recites that the 1-D beam scanner oscillates the light from the coherent light source one dimensionally in a direction perpendicular to a scan line by the 2-D beam scanner to suppress speckle noises generated by the scanned light of the coherent

light source that is scattered from a scanning surface. Gerhard fails to disclose or suggest the above-mentioned distinguishing features as recited in independent claim 13.

Rather, Gerhard merely teaches shifting a propagation direction of beam 83 that is input to an electro-optic crystal 300 by controlling a voltage applied across electrodes 306, which sandwich the electro-optic crystal 300, in order to vary an index of refraction of the electro-optic crystal 300, such that the variance in the index of refraction directly controls the change in direction of propagation (see Fig. 19, and col. 10, line 67 to col. 11, line 20).

Thus, in view of the above, although Gerhard teaches that the direction of propagation is changed by using a voltage to vary an index of refraction of a crystal, Gerhard still fails to disclose or suggest the 1-D beam scanner that oscillates the light from the coherent light source one dimensionally in a direction perpendicular to a scan line by the 2-D beam scanner to suppress speckle noises generated by the scanned light of the coherent light source that is scattered from a scanning surface, as recited in claim 13.

In other words, Gerhard merely teaches varying an index of references, but does not disclose or suggest oscillating light from a coherent light in one dimension that is perpendicular to a scan line of the 2-D beam scanner to suppress the speckle noises generated by the light scattered by the 2-D beam scanner, as required by claim 13.

Therefore, because of the above-mentioned distinctions it is believed clear that independent claim 13 and claims 16, 17, 19, 20 and 23 that depend therefrom are not anticipated by Gerhard.

Furthermore, there is no disclosure or suggestion in Gerhard or elsewhere in the prior art of record which would have caused a person of ordinary skill in the art to modify Gerhard to

obtain the invention of independent claim 13. Accordingly, it is respectfully submitted that independent claim 13 and claims 16, 17, 19, 20 and 23 that depend therefrom are clearly allowable over the prior art of record.

Amended independent claims 24 is directed to an illumination light source and recites features that correspond to the above-mentioned distinguishing features of independent claim 13. Thus, for the same reasons discussed above, it is respectfully submitted that claim 24 is allowable over Gerhard.

## **VII. 35 U.S.C. § 103(a) Rejection**

Claim 19 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Gerhard.

As discussed above, Gerhard does not disclose or suggest the invention recited in independent claim 13. Claim 19 depends on claim 13. Therefore, Gerhard also does not disclose or suggest the invention recited in claim 19. Thus, at least, the dependence on claim 13, claim 19 would not have been obvious in view of Gerhard.

### **VIII. Conclusion**

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance and an early notification thereof is earnestly requested. The Examiner is invited to contact the undersigned by telephone to resolve any remaining issues.

Respectfully submitted,

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May 12, 2009